RAW SEQUENCE LISTING   DATE: 03/07/2001
PATENT APPLICATION: US/09/199,129A   TIME: 13:40:57

Input Set : N:\COPIES\EBONY\ES.txt
Output Set: N:\CRF3\03072001\I199129A.raw

```
  1 <110> APPLICANT: Byrum, Joseph R.
  2        La Rosa, Thomas J.
  4 <120> TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
  5        Plants
  7 <130> FILE REFERENCE: 38-21(15075)B
  9 <140> CURRENT APPLICATION NUMBER: US 09/199,129A
 10 <141> CURRENT FILING DATE: 1998-11-24
 12 <160> NUMBER OF SEQ ID NOS: 5521
 14 <210> SEQ ID NO: 1
 15 <211> LENGTH: 254
 16 <212> TYPE: DNA
 17 <213> ORGANISM: Glycine max
 19 <220> FEATURE:
 20 <221> NAME/KEY: unsure
 21 <222> LOCATION: (1)..(254)
 22 <223> OTHER INFORMATION: unsure at all n locations
 23 <223> OTHER INFORMATION: Clone ID: 700547901H1
 25 <400> SEQUENCE: 1
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W--> 29 ttcaagctac ttgncttttc cttcnaactc tgcactcttc attcgctgag attttcttcg  120
W--> 31 aagagagatt cgaagatgga tggaagagcc gntgggtgct anccgattgg aaaaggagtg  180
W--> 33 aaggaaaagc gggtaccttc aagcacacag caggaaaatg gtctggggat ccngatgacn  240
    35 aaggtcttca gaca                                                    254
    38 <210> SEQ ID NO: 2
    39 <211> LENGTH: 285
    40 <212> TYPE: DNA
    41 <213> ORGANISM: Glycine max
    43 <220> FEATURE:
    44 <221> NAME/KEY: unsure
    45 <222> LOCATION: (1)..(285)
    46 <223> OTHER INFORMATION: unsure at all n locations
    47 <223> OTHER INFORMATION: Clone ID: 700547902H1
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W--> 51 gggcgcttct ggngccgcca cngctgttcc ttcgacgccg ggcgngncgg gnggcgctgc   60
W--> 53 gccaaccggg gactgcggcg ggtnccctgt tctgcaacgg catcggngga agcccaccgn  120
W--> 55 ctagnctggc ggagttcacc ctgggcaacg ancatgnantt ctacgaagtg agcctggtgg  180
W--> 57 acgggtacnn cctacccatc tccatnancn ccttcaaagg attccggaaa atgcactacn  240
W--> 59 ccgggttgcg tgaacgangt caacnccatg tgccccgttg ggctt                  285
    62 <210> SEQ ID NO: 3
    63 <211> LENGTH: 277
    64 <212> TYPE: DNA
    65 <213> ORGANISM: Glycine max
    67 <220> FEATURE:
    68 <221> NAME/KEY: unsure
    69 <222> LOCATION: (1)..(277)
    70 <223> OTHER INFORMATION: unsure at all n locations
    71 <223> OTHER INFORMATION: Clone ID: 700547903H1
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ENTERED

See p.5

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        73 <400> SEQUENCE: 3
        75 cggtgaccca ttcattggaa gcctggaaac cccagttaca tccagccctt tgatcgcatg   60
        77 gtacttgtcc aacctgcccg catacagaac cgcagtgagc ccactactaa gagggatcga  120
        79 ggtgggcctg gcccacggat accttctggt gggcccattc gtgaaggccg ggcctcttag  180
        81 gaacaccgag atcgccgggc aagcgggctc tctggccgcc ggtgggcttg tggtgatcct  240
W--> 83 cagcctttgc ctcacaatct ntgggatttc atccttc                            277
        86 <210> SEQ ID NO: 4
        87 <211> LENGTH: 219
        88 <212> TYPE: DNA
        89 <213> ORGANISM: Glycine max
        91 <220> FEATURE:
        92 <221> NAME/KEY: unsure
        93 <222> LOCATION: (1)..(219)
        94 <223> OTHER INFORMATION: unsure at all n locations
        95 <223> OTHER INFORMATION: Clone ID: 700547904H1
        97 <400> SEQUENCE: 4
        99 agccatcatc atgggagcag tgattctccc agatctcggc accgagattt tgattccggt   60
       101 ctgcgccatc attggaatag ggttcgccct cttccagtgg gtcctcgtct ccaaggttaa  120
       103 gctctccgct gccagagacg cttcccctaa cgccgccggc aaaaatggct acaacgatta  180
W--> 105 cctcatcgna gaagaggaag gcctcaacga tcacnacgt                          219
       108 <210> SEQ ID NO: 5
       109 <211> LENGTH: 271
       110 <212> TYPE: DNA
       111 <213> ORGANISM: Glycine max
       113 <220> FEATURE:
       114 <221> NAME/KEY: unsure
       115 <222> LOCATION: (1)..(271)
       116 <223> OTHER INFORMATION: unsure at all n locations
       117 <223> OTHER INFORMATION: Clone ID: 700547905H1
       119 <400> SEQUENCE: 5
W--> 121 ctcgcgcacc cttatcctcg ttgctttctc tttgcacntc attcttggct ttttcgacga   60
       123 ctcaccacct gcttcaaaag atgctacaaa ccggaagaag cactagtgct atagttatca  120
       125 ttcttccagg ggataaaata ttaggtctgg caaaaatttc ttgggtattg gaatcccagg  180
       127 agatgccaag gacttcttca atcaagtcga gtcataggtt ttctagagag cataggaaa   240
       129 gtgcttacta aaaacaatct tatttaaatg c                                 271
       132 <210> SEQ ID NO: 6
       133 <211> LENGTH: 245
       134 <212> TYPE: DNA
       135 <213> ORGANISM: Glycine max
       137 <220> FEATURE:
       138 <221> NAME/KEY: unsure
       139 <222> LOCATION: (1)..(245)
       140 <223> OTHER INFORMATION: unsure at all n locations
       141 <223> OTHER INFORMATION: Clone ID: 700547906H1
       143 <400> SEQUENCE: 6
W--> 145 gcggcttcca atggccactc tgcaattcac cttgcaccga ctcaaccaca ttgtncaggn   60
W--> 147 cttctctacc ttccacgcga accttctctc gaaaccgaag cctcattgtc aaagccnctt  120
W--> 149 tcttcttgtt ctgacgactt ctccaaaagn aggcgncgnt tcagcgcngn aancgccgna  180
W--> 151 ctctcggnct cgctcccnca gttannngng cgtgncgaag angcgcttnc ggagttggan  240
```

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                 RAW SEQUENCE LISTING          DATE: 03/07/2001
                 PATENT APPLICATION:  US/09/199,129A    TIME: 13:40:57

                  Input Set : N:\COPIES\EBONY\ES.txt
                  Output Set: N:\CRF3\03072001\I199129A.raw

W--> 153 anagt                                                    245
     156 <210> SEQ ID NO: 7
     157 <211> LENGTH: 275
     158 <212> TYPE: DNA
     159 <213> ORGANISM: Glycine max
     161 <220> FEATURE:
     162 <221> NAME/KEY: unsure
     163 <222> LOCATION: (1)..(275)
     164 <223> OTHER INFORMATION: unsure at all n locations
     165 <223> OTHER INFORMATION: Clone ID: 700547907H1
     167 <400> SEQUENCE: 7
     169 tcacaaaaca actttcaaac tctgagaaag aatggctgcc aacacattga tgagtactgc   60
W--> 171 tatctcagcc ttcccatctc tcctttcttc ctcaaaatcc agatttgcca ncgcagttcc  120
W--> 173 tctttctagc tttggtgtca ccaatgcctc ttcttcncgc ttttctatga gtgctgactg  180
W--> 175 gatgccaggc nagcctagac ctccttanct tgatggttca gcacctggtg actttggatt  240
W--> 177 cgancctctt ngtcttggtg aagtaccaga gaatc                            275
     180 <210> SEQ ID NO: 8
     181 <211> LENGTH: 273
     182 <212> TYPE: DNA
     183 <213> ORGANISM: Glycine max
     185 <220> FEATURE:
     186 <221> NAME/KEY: unsure
     187 <222> LOCATION: (1)..(273)
     188 <223> OTHER INFORMATION: unsure at all n locations
     189 <223> OTHER INFORMATION: Clone ID: 700547909H1
     191 <400> SEQUENCE: 8
W--> 193 anagcctagg gttctttttc tcttctgctc tcactccttg caaatctcgc gtaacgcatg   60
     195 cgtttcttca ctcaatcgga gcccagcact gatctatttg gaactcttcg aggtctgtgg  120
W--> 197 ttttactgta ctcaatttga taaattaagg cannnnnnnn nnnnnnnnnn nnnnntcccc  180
     199 tggtgtttat ggatgtgtcc atcgatgggg atcctgttga aaggatggtt tttgagcttt  240
W--> 201 ctatgatgtt gctcccaaga ctgnagaaaa ctt                              273
     204 <210> SEQ ID NO: 9
     205 <211> LENGTH: 235
     206 <212> TYPE: DNA
     207 <213> ORGANISM: Glycine max
     209 <220> FEATURE:
     210 <221> NAME/KEY: unsure
     211 <222> LOCATION: (1)..(235)
     212 <223> OTHER INFORMATION: unsure at all n locations
     213 <223> OTHER INFORMATION: Clone ID: 700547910H1
     215 <400> SEQUENCE: 9
     217 agcccattca aggataacga atttatgggt ggatcaattt caaaacggag gcgttctagg   60
     219 caacgttcgg cctcaaattt tcttcctcgg tatcaacaac ctcattccc acaaagccaa  120
     221 gataatgggt ctgtggggca ttatgggtat tcatctcaga gctatagtgg tggtcgtgct  180
W--> 223 ccagaacaag taaagagctn ggataggaag tatttaaggn taggtgatga ttata       235
     226 <210> SEQ ID NO: 10
     227 <211> LENGTH: 265
     228 <212> TYPE: DNA
     229 <213> ORGANISM: Glycine max
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RAW SEQUENCE LISTING   DATE: 03/07/2001
PATENT APPLICATION: US/09/199,129A   TIME: 13:40:57

Input Set : N:\COPIES\EBONY\ES.txt
Output Set: N:\CRF3\03072001\I199129A.raw

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231 <220> FEATURE:
232 <221> NAME/KEY: unsure
233 <222> LOCATION: (1)..(265)
234 <223> OTHER INFORMATION: unsure at all n locations
235 <223> OTHER INFORMATION: Clone ID: 700547911H1
237 <400> SEQUENCE: 10
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W--> 239 caaaaaaccc aaatgcaggt ttctccacta aaacttgggc gattttcana tttngtactt   60
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241 tggcacccct cacatagtag ttctcaccat gtccgatact aaaagaagtg ccaacaacag   120
243 cggttccaag cggagcctgc catcgtggac gaattcaagg gaaaatgaga gcgataacag   180
245 tgcaaagaaa ccaactttgg atggccaagg tgagaaatcc agtgacgctg agacacccca   240
247 caagagcaaa gtccaaaatg aaaat                                          265
250 <210> SEQ ID NO: 11
251 <211> LENGTH: 273
252 <212> TYPE: DNA
253 <213> ORGANISM: Glycine max
255 <223> OTHER INFORMATION: Clone ID: 700547913H1
257 <400> SEQUENCE: 11
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261 accggctctt ccggtaaact caaccgggaa gtgactatga ggccaatggg gtgccctcct   120
263 tctgcctctt tcaaggttga agccaagaag ggagagtggt tacctggctt ggcctcccca   180
265 acttacctca atggcactct tcctggtgac aatggatttg accctctggg actagctgag   240
267 gacccagaga acttgaggtg gtacgttcaa gcc                                 273
270 <210> SEQ ID NO: 12
271 <211> LENGTH: 273
272 <212> TYPE: DNA
273 <213> ORGANISM: Glycine max
275 <220> FEATURE:
276 <221> NAME/KEY: unsure
277 <222> LOCATION: (1)..(273)
278 <223> OTHER INFORMATION: unsure at all n locations
279 <223> OTHER INFORMATION: Clone ID: 700547914H1
281 <400> SEQUENCE: 12
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285 cctctctctc atcggaatct ccaaaaagaa tggacaacaa aacgcagcag tccgagagta   120
287 agcaaaacga caacgacgag gaagttgcgc caaaacgaca agaccctaac ccgtcgtctg   180
289 gcgggtgggg cttttcaccg ctctcgtttc tctccgatct tcagaaggcc gccgctgttg   240
291 cagccgaaga gatctctcgc aatgctgctg tag                                 273
294 <210> SEQ ID NO: 13
295 <211> LENGTH: 277
296 <212> TYPE: DNA
297 <213> ORGANISM: Glycine max
299 <220> FEATURE:
300 <221> NAME/KEY: unsure
301 <222> LOCATION: (1)..(277)
302 <223> OTHER INFORMATION: unsure at all n locations
303 <223> OTHER INFORMATION: Clone ID: 700547916H1
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309 cagctgttac cactgtcaac cgtgccggtg ccggcatggt tgctccattc actggcctca   120
```

```
W--> 311 agtccatggc tggcttcccc accagaaaga ccaacaatga cattanctcc attgctagca   180
W--> 313 acggtggaag agtgcnatgc atgcaggtgt gggccaccag ttggcaagaa gaagtttgag   240
W--> 315 actcnttcct acctgccaga ccttgatgat gcacatt                             277
     318 <210> SEQ ID NO: 14
     319 <211> LENGTH: 275
     320 <212> TYPE: DNA
     321 <213> ORGANISM: Glycine max
     323 <220> FEATURE:
     324 <221> NAME/KEY: unsure
     325 <222> LOCATION: (1)..(275)
     326 <223> OTHER INFORMATION: unsure at all n locations
     327 <223> OTHER INFORMATION: Clone ID: 700547917H1
     329 <400> SEQUENCE: 14
W--> 331 gagcatttcn aatggagcaa gaaattggtg attcattttc tttcgttggg nattgcattn    60
W--> 333 gcaatgatct ggattcattg attggcttgc nacgggnnct tgggtnctac tctgaacacn   120
W--> 335 aattttcaag atagctatgg gtgttgnata tttttntgtg aagaattaat gagcataatg   180
W--> 337 ttttctggaa agantggggg cagacgaatc tcattgtcaa ganttacaga gtttgagtgt   240
W--> 339 gtcaaagcga cttgtganga gtgttagcca gaagt                              275
     342 <210> SEQ ID NO: 15
     343 <211> LENGTH: 273
     344 <212> TYPE: DNA
     345 <213> ORGANISM: Glycine max
     347 <220> FEATURE:
     348 <221> NAME/KEY: unsure
     349 <222> LOCATION: (1)..(273)
     350 <223> OTHER INFORMATION: unsure at all n locations
     351 <223> OTHER INFORMATION: Clone ID: 700547920H1
     353 <400> SEQUENCE: 15
     355 attctctcca tatattatct caaacccctc tcacagaatg ggaagtgctg gaggaactga    60
     357 ctatggtgca tacacttatg agaatcttga gagagagcct tactggccat cagagaagct   120
W--> 359 taagatttcc atcactggng ctgggggttt tatcgcgtca cacatagctc ggcgcctcaa   180
     361 gacagagggg cattacatta ttgcttctga ttggaagaaa aatgagcaca tgactgagga   240
     363 catgttctgt gatgaattcc atcttgttga tct                               273
     366 <210> SEQ ID NO: 16
     367 <211> LENGTH: 273
     368 <212> TYPE: DNA
     369 <213> ORGANISM: Glycine max
     371 <220> FEATURE:
     372 <221> NAME/KEY: unsure
     373 <222> LOCATION: (1)..(273)
     374 <223> OTHER INFORMATION: unsure at all n locations
     375 <223> OTHER INFORMATION: Clone ID: 700547921H1
     377 <400> SEQUENCE: 16
     379 atcacaccat gccaccgcta gtgacaatca agagaactcc ttcaagaagg gttctgctcg    60
     381 ctctgccagt aaaagtcagg agaacaagtc atctggatta tcaaagtcat cgactaatgc   120
W--> 383 aaataattat ggttcagttt cttctcaaag ntcaagtgta cctgcaaaca gtactgagga   180
     385 tgacatggat gattttgatc caagaggaac ttctaccaaa acttcagctg gaaactctaa   240
     387 cccaggttga tctctttgga caagattaat cgg                               273
     390 <210> SEQ ID NO: 17
```

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
<223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY   DATE: 03/07/2001
PATENT APPLICATION: US/09/199,129A   TIME: 13:40:58

Input Set : N:\COPIES\EBONY\ES.txt
Output Set: N:\CRF3\03072001\I199129A.raw

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L:27  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:29  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:31  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:33  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:51  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:53  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:55  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:57  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:59  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:83  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:149 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:171 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:283 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21
L:519 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:607 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:613 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
```

VERIFICATION SUMMARY   DATE: 03/07/2001
PATENT APPLICATION: US/09/199,129A   TIME: 13:40:58

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L:639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28